

REMARKS

The Examiner's Office Action of May 29, 2003 has been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

Claims 12, 13, 15-19, 21-24, 26-43, 46-58, 60, 61, 65-71 and 75-96 are pending for consideration, of which claims 12, 18, 23, 29, 34, 37, 41, 53, 55 and 58 are independent.

Referring now to the detailed Office Action, claims 12, 15, 17, 23, 26, 28, 34-36, 46, 48, 50, 75, 77, 79, 88 and 90-91 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki (U.S. Patent 4,727,044 – hereafter Yamazaki) in view of Mukai (U.S. Patent 5,077,233 – hereafter Mukai). Further, claims 32, 53-54, 67, 69, 82, 85 and 94 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki in view of Mukai, as applied to claims 12, 15, 17, 23, 26, 28, 34-36, 46, 48, 50, 75, 77, 79, 88 and 90-91 above, and further in view of Ito et al., "Thin Film Technology of VLSI", pages 87-88 – hereafter Ito. Still further, claims 18, 21-22, 27, 47, 76 and 89 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki in view of Mukai, as applied to claims 12, 15, 17, 23, 26, 28, 34-36, 46, 48, 50, 75, 77, 79, 88 and 90-91 above, and further in view of Han et al. (U.S. Patent No. 4,599,118 – hereafter Han). Still further, claim 66 is rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki in view of Mukai and further in view of Han, as applied to claims 18, 21-22, 27, 47, 76 and 89 above, and further in view of Ito. Still further, claims 16, 19, 29-31, 33, 41-43, 49, 52, 58, 60-61, 68, 78, 81, 84, 87, 93 and 96 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki in view of Mukai, as applied to claims 12, 15, 17, 23, 26, 28, 34-36, 46, 48, 50, 75, 77, 79, 88 and 90-91 above, and further in view of Chang (U.S. Patent No. 5,064,775 – hereafter Chang) and Wolf et al., "Silicon Processing for the VLSI Era Volume 1: Process Technology" – hereafter Wolf. Still further, claims 24, 55-57, 71, 83, 86 and 95 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki, in view of Mukai, and further in view of Chang and Wolf, as applied to claims 16, 19, 29-31, 33, 41-43, 49, 52, 58, 60-61, 68, 78, 81, 84, 87, 93 and 96 above, and further in view of Ito. Still further, claims 13, 37-40, 51, 80 and 92 stand rejected under 35 U.S.C. §103(a) as unpatentable over Yamazaki in view of Mukai and further in view of Chang and Wolf, as applied to claims 16, 19, 29-31, 33, 41-43, 49, 52, 58, 60-61, 68, 78, 81, 84, 87, 93 and 96 above, and further in view of Han. Finally, claim 70 stands rejected under 35 U.S.C. §103(a)

as unpatentable over Yamazaki in view of Mukai and further in view of Chang and Wolf and Han, as applied to claims 13, 37-40, 51, 80 and 92 above, and further in view of Ito.

All of the above-summarized rejections are essentially identical to and are a repeat of the rejections in the Office Action of January 16, 2003. The final Office Action of May 29, 2003 differs from the non-final Office Action of January 16, 2003 in that the Examiner's provides a response to previously submitted arguments. Essentially, the Examiner cited Section 2145, IV of the MPEP (Rev. 1, February 2003, page 2100-155), which states that one cannot show non-obviousness by attacking references individually where the rejections are based on combination of references. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co., Inc.* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner asserts that Mukai clearly shows in Fig. 4C a laser beam being irradiated through an insulation film to crystallize a semiconductor region 203, hence, the rejection under 35 U.S.C. 103(a) using Yamazaki and Mukai references is alleged to be proper.

In response to the Examiner's assertion, Applicants respectfully submit that, even if it is proper to combine Yamazaki and Mukai are combined, a feature wherein at least channel formation region of a semiconductor film is crystallized by laser irradiation through an insulating film is not disclosed. In Mukai, silicon layer 13 is irradiated through an insulating film 14 having an opening 123 (as shown Fig. 4(c)). Because of the opening 123, a region 113 of Fig. 4(c) is directly irradiated by a laser beam. And, this directly irradiated region 113 becomes a channel region (Fig. 4(f)). That is, the channel region of Mukai is directly irradiated without the insulating film.

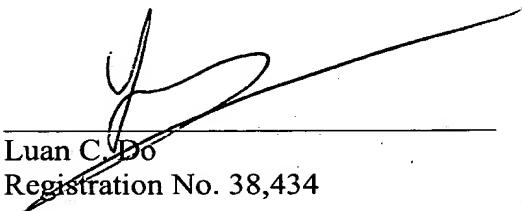
Moreover, in Yamazaki, the channel region 5C is not irradiated and crystallized since a light 17 is irradiated through the gate electrode 5G and the gate insulating film 3. The combination of Yamazaki and Mukai does not disclose the above feature, and, therefore, the rejection using Yamazaki and Mukai is not appropriate, and the citing of *In re Keller* and *In re Merck & Co., Inc.* is also not appropriate.

In view of the arguments set forth above, Applicants respectfully request reconsideration and withdrawal of all the pending rejections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with Applicants' representative, then the Examiner is

invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,


Luan C. Do
Registration No. 38,434

NIXON PEABODY LLP
Suite 900, 401 9th Street, N.W.
Washington, D.C. 20004-2128
(202) 585-8000